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#12

(FILE 'HOME' ENTERED AT 10:00:06 ON 10 JAN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, AGRICOLA' ENTERED AT 10:00:08 ON 10 JAN 2003

L1 1942344 S (CO-EXPRESSIO OR EXPRESSION)
L2 26957 S (CO-EXPRESSION OR COEXPRESSION)
L3 0 S L2 (5N) (MULTIPLE (1N) VECTOR) (5N) (MULTIPLE (3N) (PROTEIN
L4 0 S L2 (10N) (MULTIPLE (1N) VECTOR) (10N) (MULTIPLE (3N) (PROTEI
L5 3 S L2 (10N) (MULTIPLE (1N) VECTOR)
L6 1 DUP REM L5 (2 DUPLICATES REMOVED)
L7 191 S L2 AND (MULTIPLE (3N) (PROTEIN OR POLYPEPTIDE))
L8 20 S L7 AND VECTOR
L9 12 DUP REM L8 (8 DUPLICATES REMOVED)
L10 677 S CO-TRANSFORMATION
L11 191 S L10 AND VECTOR
L12 2 S L11 AND (MULTIPLE (3N) (PROTEIN OR POLYPEPTIDE))
L13 1 DUP REM L12 (1 DUPLICATE REMOVED)
L14 61 S L11 AND (PROTEIN OR POLYPEPTIDE)
L15 33 DUP REM L14 (28 DUPLICATES REMOVED)
L16 370 S SEQUENTIAL (3N) TRANSFORMATION
L17 255 DUP REM L16 (115 DUPLICATES REMOVED)
L18 6 S L17 AND VECTOR
L19 459 S MULTIPLE (1N) TRANSFORMATION
L20 25 S L19 AND VECTOR
L21 24 DUP REM L20 (1 DUPLICATE REMOVED)

L15 ANSWER 21 OF 33 MEDLINE

DUPLICATE 11

AN 95400336 MEDLINE

DN 95400336 PubMed ID: 7670503

TI Heat-inducible expression of FLP gene in maize cells.

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SO PLANT JOURNAL, (1995 Aug) 8 (2) 177-86.

Journal code: 9207397. ISSN: 0960-7412.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199510

ED Entered STN: 19951026

Last Updated on STN: 19951026

Entered Medline: 19951019

AB The soybean heat-shock gene promoter (Gmhsp 17.5-E) has been used to direct expression of gusA and FLP genes in maize cells. At inducible temperatures, in transient expression assays, gusA gene expression controlled by the heat-shock promoter is about 10-fold higher than the expression directed by the CaMV 35S promoter. The Gmhsp 17.5-E promoter preserves its regulatory functions in heterologous maize cells after random integration into genomic DNA. Heat-shock inducible expression of the FLP gene was investigated by **co-transformation** of the FLP expression **vector** (pHsFLP) and a recombination test **vector** (pUFNeoFmG) into maize protoplasts. Co-transformed protoplasts were incubated at 42 degrees C for 2 h. This treatment induced recombination of 20-25% of the available FRT sites in transient assays. As a result of heat-shock treatment of stably co-transformed maize cells, activation of gusA gene expression and an associated decrease or elimination of NPT-II activity in transgenic maize lines was observed. Molecular evidence was obtained of the expected DNA excision process catalyzed by the FLP **protein** in maize transgenic cells. Thus, the experiments presented in this paper indicate that the FLP **protein** can recognize and subsequently recombine the FRT target sites that had integrated into plant genomic DNA, and that regulated expression of the FLP gene is possible in maize cells using the soybean heat-shock promoter.